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facility the distinction of being the largest column-free space of its kind in the world. Seismic provisions in the Center assure survival in an earthquake 25 percent more severe than the famed 1906 tremor. **2 pp; 83:103**

Fallingwater—Transcending Architecture: The key to the setting of Frank Lloyd Wright's Fallingwater is the waterfall over which the house is built. Located on Bear Run, Pennsylvania, the house belongs to the ages. Conceived in concrete and bedrock, it assumes the role of a large sculpture, with the stream and falls seeming to spring forth from its very being. In 1963 Edgar J. Kaufmann, the original owner of the home, presented it and its grounds to the Western Pennsylvania Conservancy as a memorial to his parents. **2 pp; 83:109**

Temple of Light: The exquisite symmetry and delicate tracery of the Baha'i Temple, located on a bluff overlooking Lake Michigan in Wilmette, Illinois, become all the more amazing when you learn that its surface is exposed aggregate concrete. The technology for exposing aggregate, new in the 1920s, included gap-grading of the aggregate for uniform appearance and development of early strength by removal of excess free water. Developed by John J. Early of Washington, DC, these basic ideas eventually lead to marked improvements in the established art of stucco and later to the precasting of architectural concrete. **3 pp; 83:119**

The Guggenheim—A Concrete Work of Art: More sculpture than building, the Solomon R. Guggenheim Museum in New York City uses cast-in-place concrete for spiral, cylindrical and plane surfaces. Spiral exterior curtain walls were shotcreted from inside the building against carefully fabricated forms. The museum's entire structure is in its perimeter, which leaves the gallery core free and open over the 6-story height of the building. **2 pp; 83:137**

COATINGS

Sculpture Protected Against Acid Rain: A clear plastic coating, basically a polymer-modified acrylic resin in liquid form, reportedly protects against atmospheric chemicals and graffiti and reduces heat loss when used on exterior walls. Sealer is injected into the concrete using a specially designed air injection machine. **1 p; 83:50**

COMPUTERS

Microcomputers for Contractors: The rapidly growing microcomputer industry is allowing contractors who would not have considered automation two or three years ago to purchase and operate a computer today. Increasingly, contractors are asking whether they should be computerized and, if so, what microcomputer system to buy. Arthur Andersen & Co., who supplied the information in this article, says the answer can only be had by analyzing your information requirements and transaction volumes. Selection of equipment should be based on software availability and support, hardware capacity and expandability, service, and price. Information is given on each of these criteria. **3 pp; 83:593**

How Contractors Are Using Computers: Case histories are reported on uses such as controlling movement of men and supplies, keeping field estimating costs current, tracking absenteeism and other matters. **3 pp; 83:605**

DESIGN

Frame Shortening in High-rise Concrete Buildings: Concrete frame shortening is the result of elastic and inelastic concrete shortening (shrinkage and creep), and insufficiently precise concrete construction, particularly in the forming operation. Allowances must be made for the shortening whenever mechanical engineers and contractors design and install vertical pipes. The general guideline is to make sure that nonstructural elements of a building are separated from structural elements. **2 pp; 83:31**

EARTH SHELTERED CONSTRUCTION

Earth-sheltered Nature Center: The Gordon Bubolz Nature Preserve near Appleton, Wisconsin was built with a combination of precast and cast-in-place construction. Called an earth-sheltered and earth-integrated concrete building, it is heated by passive solar energy, uses electricity provided by a wind generator, and gets its hot water from solar collector panels. **1 p; 83:529**

EDUCATIONAL MATERIALS AND PROGRAMS

History-making Concrete Slab Demonstration at Manhattan, Kansas: About 2000 persons attended a very comprehensive placing and finishing demonstration of every operation—from putting the concrete in place through final finishing—in the construction of quality concrete slabs. Placing, consolidating and finishing of the work was supervised by Carl O. Peterson, a premier concrete finisher in the United States. His assistants were Loyd Peterson (Field Engineer for Portland Cement Association in Kansas), and Kenneth Johnston (Kansas State University Department of Construction Science). **2 pp; 83:486**

Children and Concrete: More than 15,000 schools in Britain include the subject of concrete in their curricula. Children not only work with it on projects of their choosing, they also learn to read architects' and contractors' drawings and work plans so they can follow the progress on rebuilding projects—in one case their own school in which high-alumina-cement beams were suspect. **3 pp; 83:615**

Our Overlooked Constituency [A guest editorial]: The "overlooked constituency" refers to the people who do the actual concrete work and make the decisions minute-by-minute that vitally affect concrete quality. Norman E. Scott, president of the American Concrete Institute, makes a strong plea for more and better training for these workers. **1 p; 83:837**

ENERGY CONSERVATION

Thermal Mass of Concrete: Thermal mass relates to the ability of a material to store and release heat. This article provides latest information on how this important property gives concrete an advantage over other materials in saving energy. A concerted and coordinated effort by the concrete and allied industries will be required at the national, state and local levels to successfully introduce provisions for thermal mass into building codes and standards. **4 pp; 83:525**

Energy Considerations Color the Future for Concrete and Cement Usage: The data included in this article were excerpted from an address by Richard E. Reuss, former president of Portland Cement Association, at the American Mining Congress Mining Convention in Denver, September 1981. Examples cited of where the use of concrete will increase include the transportation industry, mining and energy-generation industries, pipeline manufacture for coal slurries, railroad rehabilitation with prestressed concrete crossties, and dam construction as a source of hydroelectric power. **2 pp; 83:531**

Saving Energy with Concrete: A large collection of widely varying energy-saving products and techniques is presented under the following subheads: passive solar systems, insulated concrete domes, reflected light to cut electric bills, collecting energy from seawater, earth-sheltered structures, no-fines concrete buildings, recycling waste materials, solar heating flagstones, ferrocement solar collectors, concrete bases for solar reflectors, insulated concrete walls, perlite concrete roof insulation, radiant floor heating, and acrylic sealer to reduce heat loss. **10 pp; 83:532**

Insulation for Concrete Walls: Brief discussions concern the three basic types of thermal insulation for walls: rigid board, batt or blanket, and spray-on. A table shows R-values of several types of thermal insulation. **1 p; 83:550**

EXPANSIVE CEMENT

How Does Shrinkage-compensating Cement Concrete Help Post-tensioning?: Physical improvements such as reduction in the normal amount of loss of prestress, reduction of flexural cracking, and improved durability can be translated into cost reductions. The use of expansive cement is discussed in relation to multistory buildings, parking decks, slabs on grade, watertight structures, and waste-water treatment plants. **3 pp; 83:331**

FAILURES

Effect of Blasting, Jarring, and Other Transitory Vibrations on Fresh Concrete: While there is no documented record of structural failure of fresh or newly placed concrete due to the effect of nearby dynamite blasts or of pile driving or simultaneous operation of machinery, one cannot justify the general conclusion that such concrete will not be damaged in these situations. The possiblity exists that fresh concrete exposed during the first 24 hours to shock of unknown but presumably very great intensity through detonations or pile driving can suffer a loss of compressive strength. A brief table gives transitory vibration limits for fresh or immature concrete. **2 pp; 83:406**

FASTENERS

Fastening to Concrete: Reliability, simplicity, and economy should be the criteria for selecting a fastener. The general considerations presented here may assist those involved in the specification or use of mechanical fasteners in concrete. A table classifies fasteners for use in various types of concrete. **2 pp; 83:691**

FIBER REINFORCED CONCRETE

Concrete Reinforced with Polypropylene Fibers: Used as secondary reinforcement, plastic fibers help reduce shrinkage and control cracking. This discussion of their use covers mixing the fibers into the concrete batch, fiber lengths, their effect on the properties of both fresh and hardened concrete, types of uses to which fiber reinforced concrete has been put, and the cost considerations to be expected. **2 pp; 83:468**

FORMING *(see also* **DESIGN)**

Slabs Built without Vertical Shoring: A way is described for building multistory structures without excessive shoring while still being sure that lower floors are not overloaded. It features long-span form panels supported by brackets or jacks attached to the bearing walls or columns of the building itself. Special hardware of several types is available, some supported by bolts through columns or walls and some by friction collars. Currently available systems and hardware are described in this article. **4 pp; 83:455**

Contractor Builds Forms for Nine Miles of Seating Risers: To solve forming problems encountered on the first level of the Hubert Humphrey Metrodome in Minneapolis, rented aluminum beams and channels were used to create special riser forms that allowed casting of five risers at one time. Vertical steel angle with three holes provided adjustment to accommodate different heights of risers. The forming system is illustrated by diagram. **2 pp; 83:679**

FORMS AND FORMING MATERIALS

Ribbed Expanded Metal Serves as Bulkhead Form: Manufactured in sheets, ribbed expanded metal is basically a galvanized steel mesh stiffened with integral ribs. Used as permanent formwork for bulkheading thick foundation mats and walls, the material eliminates the stripping, cleaning and reoiling normally required for plywood bulkheads. Though used like other form facing materials (with strongbacks and if necessary walers), the ribbed expanded metal, unlike them, is simply left in place after the concrete has hardened. Other uses for the metal sheets are noted. **2 pp; 83:552**

HISTORY

The CN Tower: At a height of 1815 feet 5 inches, the tower is the world's tallest freestanding structure and a functional landmark in concrete: it houses Toronto's radio and TV requirements. Fully post-tensioned rather than reinforced concrete was used and the structure will remain essentially uncracked at all loads. In view of the speed at which construction was proceeding, a relatively new accelerated strength test based on autogenous curing was used; excellent strength control was achieved with 2-day tests. **3 pp; 83:125**

History and Heritage: The United States' first concrete pipe sewer was unearthed recently in the small town of Mohawk, New York by the American Concrete Pipe Association. The pipe is in excellent condition 140 years after installation. **1 p; 83:340**

INSULATING CONCRETE

Lightweight Concrete Acts as Insulation: Thermal and sound insulation can be achieved with concretes made with perlite, vermiculite, expanded polystyrene beads or foaming agents that produce a cellular structure. The concretes made with these materials are suitable as fill for floors, roof decks and other applications. **2 pp; 83:543**

JOINT SEALANTS

Pavement Joints That Last 5 Years?: These details of material to be used; joint spacing, shaping and preparation; and installation of sealant are based on a paper presented by Frank D. Gaus in 1981 at the World Congress on Joint Sealing and Bearing Systems held in Niagara Falls, New York. **2 pp; 83:33**

MARINE CONCRETE

Floating Concrete Container Terminal at Valdez, Alaska: The world's first floating prestressed concrete container dock is a major breakthrough for port and harbor planners, designers and operators. Costing $50 million, the dock was floated to Valdez and went into service there in less than a year from the time its keel was laid at Tacoma, Washington. The dock will provide year-round 24-hour-a-day cargo service to ships with up to 50,000-long-ton-capacity and barges up to 1500 tons. **2 pp; 83:131**

Concrete for Deep Ocean Construction: The findings from laboratory tests during the final phase of a 10-year study of deep ocean concrete structures support the contention that concrete is an excellent material for deep ocean construction. The study was conducted by the U.S. Naval Civil Engineering Laboratory at Port Hueneme, California. **2 pp; 83:409**

Netherlands Concrete Surge Barrier: Building of a two-mile-long surge barrier included creation of an island on which 66 immense concrete piers could be constructed for later transport to assigned locations in the sea, virtually remaking the seabed on which the piers would be placed, and the design and construction of equipment to perform these demanding tasks. The construction technology and innovative equipment are described in this article. **4 pp; 83:661**

PATTERN STAMPING

Stamped Concrete for the Residential Market: An emerging trend for homebuilders is the construction of smaller homes with a few high-visibility upgrades that serve as selling features. Decorative stamped concrete is one such upgrade. Tools are available for creating a wide variety of designs. Companies that supply these tools generally offer some help in learning to use them. Numerous suggestions and recommendations for using them are offered in this article. **1 p; 83:765**

PAVING

Guide to Jointing Unreinforced Pavements: The jointing methods described and illustrated here are intended to ensure the structural integrity and riding quality of unreinforced concrete pavements. In the author's opinion, as long as good joint practices are followed, the contractor should be allowed some latitude in changing joint locations and type to accommodate his method of placement and equipment. **3 pp; 83:401**

Three Miles of Pavement Makes History in New York: A three-mile job on First Avenue in New York City represents a pavement with a design life of 40 years—and at a cost reported to be $2 million lower than the nearest competing asphalt bid. This is the first time within recent memory that a major street in Manhattan has been paved in concrete rather than the more commonplace asphalt. **2 pp; 83:461**

Porous Concrete Slabs and Pavement Drain Water: Porous concrete is not a new material, but its use today as a paving material is expanding. Some of the benefits are that it helps recharge the groundwater supply in critical areas and reduces water runoff, which can be both dangerous and wasteful. Also, with less surface water on pavements, braking in wet weather is improved and hydroplaning is reduced. Mix designs that have served well in various situations are described. **3 pp; 83:685**

POST-TENSIONING

The Post-tensioning Industry, 1983—A Status Report: While the first major application of linear post-tensioning was completed as recently as 1951, applications for its usage increased by about 350 percent in the period from 1965 to 1980. Clifford L. Freyermuth, executive director of the Post-Tensioning Institute, in his status report covers the technology involved in this valuable construction method, the advantages it offers engineers, architects and owners, and the varied uses to which it has and may be put. **4 pp; 83:313**

Inspection of Post-tensioned Concrete: WHO and WHY?: For inspection to be effective, the post-tensioning inspection team must understand the basic design process, structural behavior, and field installation of the structural system. Inspection team qualifications are defined and the essentials of quality inspection are discussed. A detailed table of guidelines for inspection of bonded and unbonded tendons is provided. **4 pp; 83:317**

Post-tensioning Systems: This article contains a description of the methods and the hardware involved in the technique of post-tensioning. Many illustrations of the equipment used are included. **3 pp; 83:323**

Details and Shop Drawings for Post-tensioned Buildings: Details for post-tensioned concrete buildings are first developed by the design engineer or architect. But following award of the contract more specific detail drawings, called shop drawings, are developed by the post-tensioning subcontractor. These shop drawings are submitted for review and approval by the design professional before fabrication of tendons is initiated. It is the responsibility of the design engineer to approve or disapprove these submissions. Some illustrations of shop drawings are shown. **2 pp; 83:327**

Grouting Post-tensioning Ducts: The grouting for protection of bonded tendons installed in ducts or voids within concrete is a demanding job that requires special skills and materials. This article covers grout characteristics and how to test grout, then describes the necessary equipment and operations included in the grouting process. **2 pp; 83:337**

Post-tensioning for Crack-free Superflat Floors: A comparison is made of the post-tensioning methods used that produce super-flat, crack-free floors in two large structures: Carlton Cards at Brampton, Ontario (133,000 square feet) and Hallmark Cards at Leavenworth, Kansas (98,000 square feet). The similarities and differences in the construction conditions at the two locations are cited, as are the benefits and the drawbacks of post-tensioning in general. **4 pp; 83:396**

QUALITY CONTROL

Quality Assurance and Quality Control: Quality assurance is a system of procedures for making sure that what is constructed does what it's supposed to do without costly rework. Quality control is a part of the construction function in this system of procedures and includes field inspection, testing, analysis of test results and reporting the findings. Some examples of good and bad quality control are detailed in this article. **3 pp; 83:813**

The Economics of Quality Control: An explanation is given of why ready mixed concrete suppliers reap benefits at every level of testing competence. Quality control of his product is of great importance to a ready mix producer; he cannot afford not to have it. **3 pp; 83:818**

RAILROADS

Rail Systems Using Concrete Crossties: The American railroad industry, increasingly aware of concrete's advantages over wood—including lower annual costs—has installed 1.5 million prestressed concrete ties in the last 3 years. Design and installation of the various types of ties are discussed, as are the different methods of producing the ties. **3 pp; 83:822**

REHABILITATION

Old Silos Transformed into Luxurious Homes: Named Calhoun Isles and located in a prestigious area of Minneapolis, Minnesota, the stately, rounded towers of a $9.6-million condominium complex were actually 50-year-old grain elevators before their renovation. **3 pp; 83:5**

REINFORCEMENT

Field Bending of Rebars Partially Embedded in Concrete: A Concrete Reinforcing Steel Institute publication provides some answers as to what you can do if rebars partially embedded in concrete have been fabricated incorrectly, have been placed incorrectly, have become accidentally misaligned, or are no longer properly located because there has been a design change. **2 pp; 83:244**

Caisson Sunk for Water Intake: Using the sinking caisson method, a cooling-water intake structure was built by casting nearly all of the concrete above grade and gradually lowering the structure into the ground. A special bar splicing method was used to eliminate protruding reinforcing bars which would have prevented clamshell buckets from digging close to the wall. Threaded couplers were preswaged to reinforcing bars and set flush with the inside surface of exterior walls. With threaded couplers, the bars didn't have to be threaded. **2 pp; 83:389**

Solving Reinforcement Congestion Problems: Creative joint detailing and welded wire fabric reinforcement combine to speed ductile concrete frame construction of the Pacific Plaza condominium tower in Emeryville, California. The detailing practices that helped ease congestion of steel at and near joints are described. **3 pp; 83:669**

Rebar Placement Planning: Valuable hints from an experienced reinforcing steel erector point up the fallacy of trying to save on materials and thereby increasing labor costs that will more than eat up the savings on materials. Some of the other hints concern the advantages and disadvantages of two-story column cage assemblies, the type of tie and stirrup configurations specified, and the importance of pre-planning—done by professional reinforcing steel detailers who review reinforcing steel design drawings before a job gets off the ground. This latter practice can make or break your project. **3 pp; 83:675**

Epoxy-coated Reinforcing Bars: This article presents basic up-to-date technical information on fusion bonded epoxy-coated reinforcing bars in a question-and-answer format. It represents a condensed version of "Epoxy-coated Reinforcing Bars," the *Concrete Reinforcing Steel Institute Engineering Data Report Number 14,* published in 1982. **5 pp; 83:826**

REPAIRING

CPR: The Band-aid That Works: Concrete Pavement Restoration can include any one or all of the following measures: undersealing, full depth slab replacement, partial depth and spall repairs, reestablishment of load transfer at joints. grooving and grinding of pavement surface, cleaning and resealing joints, shoulder restoration. **4 pp; 83:13**

Four Steps to Successful Concrete Repair: These four developments in materials and methods have increased the number of repair options available, and the incentive of getting noncompetitive negotiated contracts should prompt innovative contractors to perfect techniques using specialized equipment and materials. **4 pp; 83:21**

The Business of Repairing Concrete: Downtime of a facility figures in the cost equation. Frequently a client is less interested in how much a contractor charges for a job than he is in how much he saves as a result of the contractor's knowledge, ability, and resulting job performance. **2 pp; 83:36**

Strengthening Block Basements with Cast-in-place Concrete: A patented engineered system is described for reinforcing the hollow cores of concrete blocks in basement walls with cast-in-place concrete and vertical rebars. The system reportedly makes the failing block walls stronger than when they were new; it can be used for walls up to 5 inches out of plumb. **2 pp; 83:141**

RESIDENTIAL

House of a Hundred Windows: Modern Japanese in concept, this concrete home has circular windows as perhaps its most distinguishing feature. There are 25 of them on each of the four sides of the building and each is shaded from the sun by tubular concrete awnings. **1 p; 83:135**

Single-family Concrete Homes in Iowa: When and how will a larger share of concrete be used in the single-family home market? Several Iowa builders believe the time is now. The *how* is to become increasingly competitive, and there are many ways to compete. Durability and energy efficiency are advantages common to all of the concrete homes covered in this article, but prices and architectural styles cover a range of tastes and pocketbooks. Several types of Iowa homes and the construction methods used are presented. **5 pp; 83:737**

New Rib Floor System for Residential Construction: Intended for use on the first floor over a basement, a cast-in-place concrete system being developed by the Portland Cement Association can span up to 16 feet and is designed to be competitive with wood joist construction. The rib floor system offers the homeowner many advantages over wood construction: better fire and storm resistance, thermal mass for solar energy storage, and no vibration or squeaks. **2 pp; 83:747**

Concrete Tiles Put Color on Residential Roofs: Advances in quality and color are in part responsible for United States' interest in precast brightly colored tiles for use as roofing material. The market is one of the fastest growing applications for concrete products today. Price also plays a part—with a 50-year life expectancy, concrete tiles now compare favorably with wood, clay, and asphalt alternatives when a life-cycle cost analysis is made. **3 pp; 83:750**

Instruction from the American Concrete Institute about Residential Construction: American Concrete Institute Committee 332 is completing a "Guide to Residential Cast-in-Place Concrete Construction," a long-needed compilation of practices that lead to good quality concrete in residential work. The article presented here concerns residential concrete basement or foundation walls, but much of it applies also to nonloadbearing partition walls and other concrete walls above or below grade. Site planning, excavation, and design considerations are discussed. **2 pp; 83:757**

Colorful Concrete Pavers Enhance the Home Landscape: Durable, interlocking concrete paving units can easily be installed over a properly prepared base because they are simply fitted together and no mortar is required. Made of no-slump, high compressive strength concrete, the pavers are suitable for exterior residential use or commercial construction. Installation procedures for the pavers are illustrated. **2 pp; 83:761**

SCULPTURE

Sculptured Concrete Panels Feature Indian Designs: The elevator towers and front entrance of the Naval Regional Medical Center in Bremerton, located not far from Seattle, are decorated with about 52 precast concrete panels sculpted in bas-relief forms that recall and venerate the Haida, an Indian tribe of the Pacific Northwest. Virtually the same procedure used in precasting the panels could be used to form sculptured reliefs in concrete precast on site and concrete which is cast in place. **1 p; 83:411**

SKIDPROOFING

Skid Resistance Theory Related to Grooving Practice—A New Report: The International Grooving and Grinding Association publication titled "Safety Grooving, Hydroplaning and Friction" explains the mechanism by which safety grooving of pavements reduces hydroplaning and increases friction. Some prevalent misconceptions on the subject are dispelled. **3 pp; 83:619**

SPECIFICATIONS

Are We Specifying Our Problems?: The author, a former Portland Cement Association structural engineer, warns that the way some specifications are written virtually guarantees a poor result. Where telltale phrases are used such as "smooth finish," "in accordance with industry standards," and "smooth as-stripped form finish," one can be sure there are no industry standards to define such terms. Specifiers must be persuaded to adopt a standard specification such as "ACI Standard Specification for Structural Concrete for Buildings," (ACI 301-72; Revised 1981). **2 pp; 83:449**

ACI 301—Specifications for Structural Concrete for Buildings: ACI 301 is a *reference standard* which the engineer or architect may make applicable to any building project by citing it in the project specifications, then supplementing it as needed by designating or specifying individual project requirements. A warning is given against specifications incorporating ACI 318 by reference instead of using ACI 301. ACI 318 is written so it may be adopted by reference in a general building code. It is intended as *public law,* not a *specification.* **3 pp; 83:451**

SUMMER CONCRETING

What to Do with Concrete in Hot Weather: In addition to high air temperatures during concreting, there is a variety of other weather effects in summer that can have immediate and/or long-term bad effects on concrete. A checklist of time-tested ideas includes advice on planning, concrete production, delivery and discharge, placing and finishing, curing and protection, testing and inspection. **4 pp; 83:381**

Cooling Concrete with Liquid Nitrogen: Cooling summer concrete mixes can be achieved with liquid nitrogen (LIN) by three different methods: a system for cooling batch water, a system for producing an ice-water slush mixture, or a system for cooling cement as it is unloaded from bulk transport. The three systems are illustrated with diagrams. Costs with the use of these systems are discussed briefly. **3 pp; 83:391**

TEMPERATURE EFFECTS ON CONCRETE

LNG Storage Tanks: Concrete in an Ultra-cold Environment: Studies being done in England show that for everyday operating safety, a single prestressed concrete tank with internal insulation is the most economic system for storing liquid natural gas (LNG). Together with numerous other advantages, concrete's resistance to corrosion and fire and its low maintenance costs make it attractive to the designer of LNG tanks for cryogenic service. **2 pp; 83:465**

TESTING

Keeping Voids from Hiding in Plastic Concrete: A new nondestructive test method is described that involves the sending of an acoustical signal through a plastic concrete mass to check for uniformity and density of concrete in critical situations. Use of the test has been made during construction of a cable stay concrete bridge that spans the Ohio River. **2 pp; 83:839**

UNUSUAL USES OF CONCRETE

Tombstones, Stepping Stones and Dominoes. **1 p; 83:256**

Floating Stone Launched in Indiana. **1 p; 83:351**

Former Construction Worker Sculpts Concrete Dragon. **2 pp; 83:415**

Concrete Fable; Just Passing Through. **1 p; 83:484**

Concrete Gargoyles Decorate Concrete House. **1 p; 83:643**

WALLS

Precast Panels Shape Wall System with High R-value: A step-by-step description is given for assembling reinforced concrete planks in parrallel rows about 5 inches apart and filling the cavity between them with either poured urethane foam or concrete. Reportedly geared to meet the overseas needs in housing and light commercial construction, the system can also be adapted for the U.S. market. **1 p; 83:249**

Concrete Barrier Walls for Peace and Quiet: Carefully designed concrete barrier walls can offer the homeowner privacy as well as relief from objectionable sounds and views. Four barrier wall systems are described and illustrated: large panels with tongue-and-groove joints, smaller interlocking panels with cable-tied joints, stacked interlocking modules, and manhandled panels. The first three systems require crane, hydraulic excavator, or other power assist for erection; the fourth can be built by two persons using methods similar to those used for conventional fencing. **6 pp; 83:767**

CORRECTIONS TO ITEMS PUBLISHED DURING THE 1983 VOLUME YEAR

Single-family Concrete Homes in Iowa, October, page 737. FHA approval for the dome home described is still pending. See letters regarding this in Reader Response, January 1984 issue of CONCRETE CONSTRUCTION.

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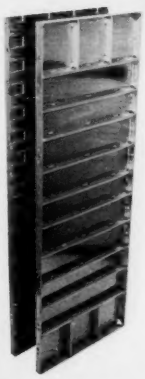

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